Research: Looking Back and Ahead After Four Decades of Progress

Although 1990 marked the 25th anniversary of the American Occupational Therapy Foundation (AOTF), organized research efforts in the profession have been underway for several decades. Previous articles in this series have highlighted developments in practice and education over the past 40 years, in which the years 1949 and 1989 have been compared.

Dramatic changes have occurred since 1949 in the number and educational level of occupational therapy professionals, the nature of practice, and the organizational structures provided to support research activity. In the present article, the extraordinary nature of those changes is highlighted, providing a basis for anticipation of equally dramatic changes in the years ahead.

Qualified Researchers: A Requisite to Scientific Progress

For progress to occur, the enterprise of research in a practice profession requires educated persons who have the spirit of inquiry necessary to advance knowledge as well as the skills required to plan and conduct useful studies. These skills are generally acquired through graduate study. In 1949, there were 2 occupational therapists in the United States with doctoral degrees and only 25 therapists with graduate degrees. In that year, there were 3,384 therapists registered with the American Occupational Therapy Association (AOTA), of whom only 2,089 (62%) were in active practice (Jantzen et al., 1964). Similarly, in 1949, only 60% of registered occupational therapists held degrees in any field, because a large percentage of those practicing during that era had credentials based on the receipt of certificates from accredited educational programs. Certificate programs were designed to prepare persons holding degrees in other fields to become qualified in occupational therapy.

It was recognized in 1949 that the paucity of qualified researchers in occupational therapy was a shortcoming that needed to be addressed. Wilma West, one of the most distinguished therapists in the history of the profession, was Executive Director of AOTA in that year. Writing in a report published in the American Journal of Occupational Therapy (AJOT) that graduate programs would need to be developed in order to increase the amount of research, West (1949) noted that:

Charles Christiansen, EdD, OTR, OTR/C
AOTA, is Chair of the Research Advisory Council and Professor and Director of the School of Rehabilitation Medicine, University of British Columbia, Vancouver, British Columbia, Canada.
(Mailing address: PO Box 1111, Point Roberts, Washington 98281-1111)

Graduate study combining didactic courses in research methods and practical opportunities with clinical material is essential to the objective evaluation of treatment programs in various disability fields. (p. 310)

In contrast, in 1989, with more than 50,000 occupational therapy personnel in the United States, of which more than 85% were in active practice, 1 of every 5 therapists held a graduate degree, and nearly 400 possessed a doctoral degree (L. Silvergleit, personal communication, February 1991).

The growth and increased sophistication of the profession can be attributed to many factors, one of which is the number of educational programs available at the graduate level. In 1949, only 2 programs in the United States offered graduate degrees in occupational therapy, both at the master’s degree level. Today, 31 graduate programs are available, including 3 at the doctoral level.

Given that graduate education often provides a foundation for understanding, valuing, and conducting research, it seems clear that the profession is in a much better position to mount serious research programs than it was four decades ago. This becomes evident on examination of the occupational therapy literature for the two periods of time.

Research Reported in the Profession’s Literature

One method by which we can compare the status of research in 1949 and 1989 is through an analysis of the published articles in official occupational therapy journals. I did this by reviewing articles in AJOT and Occupational Therapy and Rehabilitation for 1949 and AJOT and the Occupational Therapy Journal of Research (OTJR) for 1989. Although there are more than two occupational therapy journals in publication to
day, I restricted the analysis to the two journals published by AOTA and AOTF for the 1989 data to provide a convenient and equivalent basis for comparing the two eras.

Consideration of only the number of pages published would reveal that the amount of information now published in occupational therapy journals dwarfs that which was available in 1949. We must make a distinction, however, between information and research. If a research article is defined as one that generates new knowledge by providing increased understanding about the nature of things, the proportion of genuine research articles published in the occupational therapy journals of 1949 becomes quite small. Indeed, only 14% of the articles published in 1949 added to our body of knowledge, compared with nearly 60% of the articles in OTJR and AJOT published in 1989. Additionally, of those research articles published in 1949, most were simply descriptive, providing limited insight into the relationships among the phenomena observed. In contrast, the research articles published in 1989 reflected a much greater proportion of studies in which the investigators observed the effects of manipulated variables. Such studies provide information better suited to the development and validation of theories that allow explanation, prediction, and control. A comparison of the types of research articles published in 1949 and 1989 follows:

- Qualitative—8%, 1949; 5%, 1989.
- Descriptive (i.e., involved descriptive or correlational statistics)—61%, 1949; 53%, 1989.
- Experimental—0%, 1949; 22%, 1989.

Mosey (1971), in a historical appraisal of occupational therapy between 1942 and 1960, described the period as lacking a professional scientific base. She noted that

- The theoretical base consciously used by the occupational therapists during this period was embryonic at best. Emphasis was on technique rather than theory.
- The literature indicates a how-to-do orientation and let-me-tell-you-about-my-program approach. Basic hypotheses and systematic statements regarding the nature of man, the nature of physical and psychological change processes are conspicuously absent. (p. 235)

Moreover, in 1949, occupational therapists were the sole authors of 14 (27%) of the 52 feature articles published in the two journals. Most of the articles were written by non-occupational therapists (principally, physicians), whereas 13% of the articles were written by interdisciplinary teams that included occupational therapy personnel. In contrast, by 1989, approximately 70% of the articles in AJOT and OTJR were written solely by occupational therapy personnel, 6% were written by persons not qualified in occupational therapy, and the remainder were jointly written.

Interestingly, among those therapists publishing research in 1949 was the late A. Jean Ayres. Her article, "An Analysis of Crafts in the Treatment of Electroshock Patients" (Ayres, 1949), described the process of activity engagement by psychiatric patients after electroshock treatment. As Ayres' article might suggest, it was not unusual in 1949 to see articles published on the topic of mental health. Nearly one third of the articles in the two journals in that year conveyed information about mental health, with an equal number of articles providing information related to practice in physical dysfunction. The remaining articles, from greatest to fewest, related to pediatrics, gerontology, work, and education. In contrast, nearly 40% of the articles in AJOT and OTJR published in 1989 were related specifically to practice in physical dysfunction, with less than 5% published on mental health. Despite the emergence of work rehabilitation and gerontology as more popular areas of practice, less than 1 in every 20 articles in 1989 dealt with these areas. Generally, the literature for the years 1949 and 1989 reflected the proportions of therapists practicing in different specialties in those years.

Structures to Support Research

Data provided earlier in this paper showed that changes in demographics, including the numbers, qualifications, and specialties of practitioners in occupational therapy, have been reflected in the occupational therapy literature. Demographic data alone, however, cannot explain the growth of occupational therapy research in the past 40 years. These advancements are more accurately explained by the profession's philosophical commitment to research and the structures created within this climate of support. Such structures for research promotion were just emerging in the late 1940s.

In 1949, AOTA began the year with a Clinical Research and Service Committee, chaired by Carlotta Welles, now retired, a longtime director and benefactor of AOTF. Under this body was the Special Research Committee on Poliomyelitis, chaired by Margaret Road. In that year, the President of AOTA, Winifred Kahmann of Indiana University, Indianapolis, established a Committee on Research and Application, whose responsibilities were to oversee subcommittees on research methods and application, with a yearbook on one section of the field to be featured each year, so that orthopedists, neurologists, general medicolegists, and psychiatrists would be featured in alternate years. Also planned was the production of an annotated selective bibliography (Kahmann, 1949).

One can argue that the creation of AOTF in 1965 and its recognition as the agency for overseeing AOTA research activities has been the single most important event in fostering the development of occupational therapy knowledge. The impressive quarter-century history of AOTF reflects an excellent partnership with AOTA; these sister organizations have collaborated on a number of important projects over the years. This tradition continued in 1989, when the field witnessed a number of activities that were designed specifically to foster research activity and that are continuing to do so.

The Research Advisory Council, itself a product of an AOTA-AOTF collaboration, provides the structure for the coordination and oversight of these research-related activities, which include grants, research publications, and developmental activities in research and scholarship. The Chair of the Research Advisory Council is appointed jointly by the Presidents of AOTA and AOTF, and the Council's composition includes representatives from the two organizations.

In 1983, the Research Advisory Council developed the Academy of Re-
search in Occupational Therapy, an honorary body that recognizes outstanding scientists in the field. More recently, the Research Advisory Council selected two Centers for Research in Occupational Therapy, one at Boston University and the other at the University of Illinois, Urbana. These centers, funded jointly by AOTA and AOTF, nurture specific areas of scientific focus and provide for the training of new investigators.

Besides these high-profile activities, other significant efforts have provided the structure for sustained progress in occupational therapy research, including the provision of various grant programs for research projects and support for advanced study. Since the research grant program began in 1979, more than 100 research projects have been funded by AOTA and AOTF at an amount exceeding $500,000 (AOTF, 1990). The two bodies have sponsored doctoral and postdoctoral fellowships and numerous research symposia in a systematic effort to advance the knowledge underlying occupational therapy practice. Finally, the joint efforts of AOTA and AOTF resulted in the creation of a state-of-the-art computerized bibliographic retrieval system known as OT BibSys (Binderman, 1989). This electronic library, developed from AOTF’s Wilma L. West Library resources, allows researchers anywhere to gain on-line access to the most complete collection of occupational therapy literature in the world.

**Occupational Therapy Research: Tomorrow and Beyond**

Although these recent efforts reflect the great distance we have come in 40 years to provide the structure necessary to support advancements in theory and practice through research, in many ways we are just beginning. The development of occupational therapy as an applied science will require an improved understanding of occupation and its relationship to health and well-being. Our basic efforts at understanding these phenomena should provide the core knowledge for an academic discipline necessary to establish recognized doctoral programs throughout North America. If this is to occur, our resources for research, now miniscule in comparison to amounts spent in support of other types of health-related research in the United States, will need to be increased greatly. We must convince the government and other funding sources that we have the scientists and ideas to warrant major support. To do this, our scientific work must be first-rate, and we must have sufficient belief in our own ideas to demonstrate levels of commitment commensurate with the audacious thinking of the leaders who got us started more than 40 years ago.

Though the journey is long, the destination is important. Society has few challenges more noble than the improvement of the life circumstances of persons whose ability to engage in life's occupations has been compromised. The efforts in support of research over the past four decades have taken us a considerable distance toward meeting that challenge.

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**References**


